

Michigan's 21 million-gallon frack job: a national record?

Michigan frackers destroying more water per well than anywhere in the nation

The destruction of the world's fresh water due to fracking is at the uppermost of our minds, as we live, and drink the water, in the Great Lakes state. How much water is being used for Michigan's frack industry is now proven to be obscenely underestimated. Michigan may have set a national record for allowing Encana Oil & Gas USA to frack a natural gas well with over 21 million gallons of water.

A second nearby well is set to be fracked with over 16 million gallons, according to a permit granted Encana late last year by Michigan regulators.

These big numbers are a big surprise. Most industry and government claims of water usage go by Marcellus shale figures, but here in Michigan, the frackers are using more water than perhaps anywhere else in the nation.

- Michigan regulators (the Department of Environmental Quality) say "[up to 5,000,000 gallons or more.](#)"
- Industry's public relations front group, Energy In Depth, says "[as much as five million gallons.](#)"
- Another industry group website, [FracFocus](#), by Ground Water Protection Council and Interstate Oil and Gas Compact Commission states it takes (referring to the Marcellus shale in the eastern U.S.) "[5 million gallons of water per well.](#)"

The truth is now coming out

* [FracFocus](#) says the first well, State Excelsior 3-25 HD1, was fracked on October 30, 2012, and Encana used **21,112,194 gallons of water**. Combined with two other horizontal wells on the same pad, [FracFocus](#) says **over 42 million gallons** went permanently downhole. The Excelsior pad (named after the township) is on Sunset Trail between Kalkaska and Grayling in the Mackinaw State Forest in Kalkaska County.

Some of the 42 million gallons of fresh water being poured into the drilling pit at the State Excelsior frack well can be seen in this video by [Respect My Planet](#):

http://youtu.be/C0vXPEm-J_Q

* A permit was issued last November 30, for Encana's well State Roscommon 1-7 HD1, states the company intends to frack with 400,000 barrels. That equals **16,800,000 gallons**. The company's application adds that the wellpad is sized to accommodate "up to six or 8 HD's" (horizontal drills). If there are eight horizontal drills on the pad, the **total water usage will be over 100 million**

gallons. The pad is in the Roscommon State Forest, south of [Houghton Lake](#).

The per-well figures are three and four times what the industry and regulators have been saying. And it cannot be compared to the water used by farmers. Irrigation water returns to the aquifer and the hydrologic cycle. Water used for fracking is lost forever deep in the frack wells and disposal (injection) wells.

Why is the gas industry allowed to suck up so much water? Industry's latest answer is that fracking is ok because burning natural gas synthesizes new water in the atmosphere, chemically, where it didn't exist before. Eventually the new water rains to earth. If enough gas is burned from a well, the water created can actually surpass the amount of water destroyed in the fracking process.

This is a diversionary tactic to try to ignore the fact that millions of gallons of water are being destroyed forever, leaving our landscape full of frack wells and injection wells filled with toxic and carcinogenic frack wastes--water permanently diverted from the Great Lakes and now buried in the ground... in literally bottomless pits.

The industry's newest gimmick is also only telling half the story about the chemistry and, there's a catch: Little of the rain will fall in Michigan. Atmospheric winds whirl it around the world. It can fall anywhere, usually on places with wet climates or in the oceans. In addition to creating H₂O, burning methane also creates CO₂, a greenhouse gas that worsens climate change.

Michigan is in a drought. Great Lakes levels are at near-record lows. Water is limited. Gas extracted here -- or anywhere -- will bring scant amounts of it to rain in our state.

There's a second catch: Inevitably some wells are duds. Duds don't produce enough gas to generate enough water to equal the amount lost during fracking.

Exponentially more water threatened by future wells

Encana's threat to Michigan is profound. Encana has identified 1,700 potential Collingwood *well locations* in Michigan. Each location may host more than one frack well. Encana holds oil and gas leases on 430,000 net acres in the state. [Recent pipeline applications](#) say it anticipates drilling a significant number of wells in Kalkaska and Crawford Counties over the next several years.

It's painful to do the math on how much water this would destroy. If all 1,700 Encana well locations used 21.1 million gallons of water, **35.8 billion gallons of water would be used for Encana's wells alone**, producing even greater amounts of frack wastes, when adding in the amounts of chemicals, additives and sand ("proppants") in the injectate. And if the Roscommon and Excelsior wells are the model for the industry, it is likely there would be more than one frack well on each of the 1,700 frack well locations, more than doubling or tripling the water and wastewater estimates.

Since learning of the high water-use figures at the Excelsior and Roscommon wells, Ban Michigan Fracking has asked industry and environmental sources around the country to see if anyone has heard of any larger well anywhere. So far, no larger well has been identified. We will keep readers posted.

Michigan will become a toxic wasteland of frack wastes that will be unrecoverable and unfixable

The burgeoning problem resulting from all this fracking and unconventional shale gas drilling is where to put it all the toxic wastes directly made by the process? Already Ohio is the recipient of the Pennsylvania frack industry's wastes, in addition to its own, [overwhelming the injection wells there](#). Michigan, with over 1,000 injection wells, will quickly become a toxic wasteland, taking in frack wastes from Michigan and other locations. (see: [Injection Wells: The Poison Beneath Us](#), ProPublica, June 21, 2012).

Is this the kind of Michigan where healthy crops can be raised, where industries like wineries and breweries can produce uncontaminated products? Where pure Michigan groundwater can continue to sustain us?

More on Michigan injection wells and frack wastes in a future post.